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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,014	08/17/2000	Dieter Wenninger	BEIERSDORF 634-WCG	4830

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EXAMINER

RIBAR, TRAVIS B

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 12/13/2001

7

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/641,014	<b>Applicant(s)</b> WENNINGER ET AL.	
	<b>Examiner</b> Travis B Ribar	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 10, 15 and 16 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-9, 13, and 14, drawn to an adhesive tape, classified in class 428, subclass 346.
  - II. Claim 10, drawn to process for producing an adhesive tape, classified in class 264, subclass 405.
  - III. Claim 15, drawn to a method for sealing cartons, classified in class 493, subclass 394.
  - IV. Claim 16, drawn to a method for bundling or palleting cardboard, classified in class 414, subclass 787.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions 1 and 2 are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process, such as lamination.
3. Inventions 1 and 3 or 4 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different

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process of using that product (MPEP § 806.05(h)). In the instant case the material claimed may be used in a materially different process, such as taping a poster to a wall.

4. Inventions 2 and 3 or 4 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions relate to a process for making an adhesive and a method of using an adhesive.

5. Inventions 3 and 4 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions relate to different methods of using an adhesive tape.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Mr. William C. Gerstenzang on December 5, 2001 a provisional election was made with traverse to prosecute the invention of an adhesive tape, claims 1-9, 13, and 14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10, 15, and 16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 6, 8, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al.

The applicant claims a pressure-sensitive adhesive composition based on a non-thermoplastic elastomer with a backing comprising an oriented thermoplastic film where the pressure-sensitive adhesive comprises a thermally labile crosslinking system in claim 1. The applicant further claims that this system may be crosslinked using UV radiation or accelerated electrons (claim 6) and a photoinitiated system (claim 5). Also claimed is a composition wherein the substrate that the adhesive is adhered to comprises a release layer (claim 8) or undergoes corona treatment before the adhesive is applied (claim 9).

Yamamoto et al. shows a pressure-sensitive adhesive composition based on a polymeric elastomer (column 4, lines 1-11) adhered to thermoplastic substrates. This polyurethane becomes a non-thermoplastic elastomer following crosslinking, which Yamamoto et al. shows may take place either by heat (column 7, lines 25-33) or through the use of UV radiation (column 4, lines 56-60). The crosslinking system is further taught to possibly comprise a photoinitiator and a curing component based on a polyfunctional methacrylic ester (column 4, lines 42-67), the amounts of which may be easily adjusted to levels suitable for the required polymerization by those skilled in the art. Yamamoto et al. also shows the substrate layer may comprise a release agent or may undergo a corona treatment (column 3, lines 61-67).

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ikeda et al.

Ikeda et al. shows a pressure-sensitive adhesive comprising a non-thermoplastic elastomer (polyurethane) that undergoes crosslinking upon exposure to heat and may be adhered to a thermoplastic film (column 8, lines 58-67).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 8, 9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. in view of Yarusso et al. '249.

Applicant's claims 1, 6, 8, and 9 are summarized above. The applicant further claims the pressure-sensitive adhesive in claim 1 adhered to a thermoplastic film comprising biaxially-oriented polyester film (PET in claim 2) and claims a specific composition of the adhesive in claim 3. The crosslinking system is defined by the applicant to be based on isocyanates (or polyisocyanates) used in a particular weight percent within the pressure-sensitive adhesive composition (claims 4 and 14), or a photoinitiator mixture used in a particular weight percent within the pressure-sensitive adhesive composition (claim 5). Also, the applicant further claims a pressure-sensitive adhesive composition comprising a tackifying resin in addition to natural rubber in claim 13.

Yamamoto et al. shows a pressure-sensitive adhesive composition based on a polymeric elastomer (column 4, lines 1-11) adhered to thermoplastic substrates, but does not explicitly state that those substrates may be oriented in general or, more specifically, comprise biaxially oriented polyester such as that used as a substrate for a packing tape. Further, though Yamamoto et al. teaches some compositions of the polymeric pressure-sensitive adhesive, it does not specifically state the composition claimed by the applicant. The compositions claimed by Yamamoto et al. contain a crosslinking system based on isocyanates (column 8, lines 3-10) used in the same weight percent claimed by the applicant in the applicant's claim 3, but not many of the other aspects of the claim, such as the inclusion of natural rubber and tackifying resin

materials in the pressure-sensitive adhesive composition. Further, Yamamoto et al., while teaching the use of a photoinitiator in the pressure-sensitive adhesive, does not teach the same photoinitiator composition that the applicant shows in claim 5.

Yarusso et al. '249 claims a pressure-sensitive adhesive comprising natural rubber (a non-thermoplastic elastomer) and a tackifying resin (column 3, lines 46-52) used to improve the adhesive properties of the pressure-sensitive adhesive. Further, Yaruso et al. '249 shows that this adhesive may be coated on a biaxially oriented polyester film substrate (column 5, lines 29-35), including polyethylene terephthalate (Yarusso et al. '249 claim 8). The substrate is also claimed to comprise a release surface or coating (column 3, lines 64-67 and Yaruso et al. '249 claim 4). The use of a crosslinking agent is also taught to be advantageous in this system (column 4, lines 26-28).

A specific composition forming a pressure-sensitive adhesive is shown in Yaruso et al. '249 in Example 7 (column 17, lines 18-45) which includes natural rubber, tackifier, a plasticizer, and an aging inhibitor in the amounts that are claimed by the applicant in the applicant's claim 3. The use of fillers in this pressure sensitive adhesive is also taught (column 6, lines 43-48) and the use of fillers to alter the final properties of adhesive compositions is considered well-known in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the invention of Yamamoto et al. in view of Yaruso et al. '249 such that.:

- a. The pressure-sensitive adhesive comprises a pressure-sensitive adhesive that is specifically applied to an oriented polyester substrate, specifically biaxially



oriented polyethylene terephthalate, in order to create an adhesive tape for use in a packing-tape application;

b. The pressure sensitive adhesive may be coated on the oriented thermoplastic substrate and may further comprise a crosslinking system based on isocyanates, polyisocyanates, or a system comprising a photoinitiator and at least one polyfunctional methacrylic acid, used in amounts known to those of ordinary skill in the art in order to provide a means of crosslinking the pressure-sensitive adhesive, the end result being the creation of an adhesive tape;

c. The pressure-sensitive adhesive may be coated on an oriented thermoplastic substrate and may further comprise a composition that may be crosslinked by means of UV radiation, the end result being the creation of an adhesive tape;

d. The pressure-sensitive adhesive found in Yamamoto et al., including the crosslinking agent taught therein, may be coated on an oriented thermoplastic substrate and may further comprise the composition found in Yarusso et al. '249 (column 17, lines 18-45) and also includes fillers added in amounts known to those of ordinary skill in the art such that the composition of the pressure sensitive adhesive meets the requirements put forth in applicant's claim 3 in order to obtain a crosslinked natural-rubber pressure-sensitive adhesive with tailored properties, the end result being the creation of an adhesive tape;

e. The pressure-sensitive adhesive may be coated on an oriented thermoplastic substrate that may comprise a release coating to promote the use

of the resulting adhesive tape, the end result being the creation of an adhesive tape;

f. The pressure-sensitive adhesive may be coated on an oriented thermoplastic substrate that may be treated with corona discharge treatment in order to promote the adhesion of the pressure-sensitive adhesive to the substrate, the end result being the creation of an adhesive tape;

g. The pressure-sensitive adhesive may be coated on an oriented thermoplastic substrate and may further comprise a natural rubber and a tackifying agent in order to promote adhesion, the end result being the creation of an adhesive tape.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. or Ikeda et al. in view of Kelch et al.

Applicant claims an adhesive tape wherein a coat of a primer is applied between the thermoplastic film and the adhesive layer. Yamamoto et al. and Ikeda et al. show the adhesive layer adhered to the substrate layer, but do not show a primer layer between them. The use of primers to promote adhesion between two layers is well known in the art. Kelch et al. shows the use of a primer layer between an oriented thermoplastic substrate and an adhesive material in order to promote the adhesion between them (column 3, lines 21-24). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use a primer between the oriented thermoplastic film substrate and the adhesive in either Yamamoto et al. or Ikeda et al. in order to promote the adhesion between those two layers.

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7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. and Yarusso et al. as applied to claim 1 above, and further in view of Kelch et al.

Applicant claims an adhesive tape wherein a coat of a primer is applied between the thermoplastic film and the adhesive layer. Yamamoto et al. in view of Yarusso et al. show the adhesive layer adhered to an oriented thermoplastic substrate layer, but do not show a primer layer between them. The use of primers to promote adhesion between two layers is well known in the art. Kelch et al. shows the use of a primer layer between an oriented thermoplastic substrate and an adhesive material in order to promote the adhesion between them (column 3, lines 21-24). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use a primer between the oriented thermoplastic film substrate and the adhesive in order to promote the adhesion between those two layers.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yarusso et al. (U.S. Pat. No. 5858150)

Bilkadi (U.S. Pat. No. 5639546)

Gurin et al. (U.S. Pat. No. 3802952)

Tokunaga et al. (U.S. Pat. No. 6093464)

Shores (U.S. Pat. No. 5543171)

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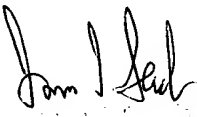
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis B Ribar whose telephone number is (703) 305-3140. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Travis B Ribar  
Examiner  
Art Unit 1711

TBR  
December 10, 2001



Travis B Ribar